79-769

Sparse molybdenite in granodiorite stock associated Theodore and Blake (1975) with wallrock-type porphyry copper deposits Major molybdenite stockworks in quartz monzonite and Blake and others (1978, 1979) feldspathic sandstone Molybdenite along fault zone Roberts and Arnold (1965) Trace molybdenum in chert and argillit Theodore and Roberts (1971) Granodiorite of Modoc mine Trace molybdenum in granodiorite Theodore, Silberman, and Blake (1973) Granodiorite of Trenton Canyon Trace molybdenum in granodiorite Trace molybdenum in granodiorite Granodiorite of Timber Canyon Trace molybdenum in assay Molybdenum analyses of 5 to 20 ppm Granodiorite of Elder Creek Molybdenum analyses of 5 to 50 ppm Molybdenite in widely dispersed veinlets Wrucke and Armbrustmacher (1975); Wrucke, Armbrustmacher, and Hessin (1968) Tenabo-Lovie area Disseminated molybdenum, analyses from 10 to 1000 ppm Stewart, McKee, and Stager (1977); Gilluly and Gates (1965) Mud Spring mine Disseminated molybdenum, analyses from 10 to 200 ppm Wrucke, Armbrustmacher, and Hessin (1968) Cortez mine area Occurrence of molybdenum Stewart, McKee, and Stager (1977) Lewis Minor occurrence of molybdenum Birch Creek Molybdenite in skarn Stewart, McKee and Stager (1977); Schilling Lander Hill Disseminated molybdenite in veins Linka Molybdenite and scheelite in skarn Mineral Hill Molybdenite in breccia zone Vanderburg (1938), Schilling (1962); Roberts, Montgomery, and Lehner (1967) Ruby Hills mine Molybdenite and wulfenite Nolan (1962); Vanderburg (1938) Antelope mine Molybdenite localized by fissure veins in skarn Vanderburg (1938); Schilling (1962) Gibellini Selected analyses for molybdenum up to 0.11 percent Ely (Robinson) Disseminated molybdenite in major porphyry copper Spencer (1917); Schilling (1964) Monte Cristo Springs Molybdenum and tungsten in skarn U.S. Bureau of Mines (1978) Molybdenum disseminated in veins Schilling (1964) Analyses of 10 ppm for molybdenum in skarn Getchell mine Schilling (1962, 1964) Richmond mine Molybdenite in contact metamorphic zone Schilling (1962) Powellite in skarn Tonopah (Chase) Hobbs and Clabaugh (1946); Schilling (1962) Molybdenite in veins with scheelite Jupiter Group Vanderburg (1938) Reilly mine Molybdenite disseminated in granodiorite Minor occurrence of molybdenite Small reserves of molybdenum as powellite and molybdenite Minor occurrence of molybdenite Molybdenum analyses 10 to 50 ppm from surface samples Erickson and Marsh (1974) Molybdenum analyses of 10 to 50 ppm Powellite in skarn Schaller (1911); Cornwall (1972) Major molybdenite deposit associated with alaskite Disseminated molybdenite found with other base-metal Ervine (1973) Molybdian scheelite in skarn F. J. Kleinhampl and J. I. Ziony (unpub. Molybdenum present as both wulfenite and molybdenite Quartz Mountain Camp Molybdenite in quartz stockworks F. J. Kleinhampl and J. I. Ziony (unpub. data, 1979); R. L. Foster (written commun., Hunts Canyon Molybdenite associated with quartz veins and pods Alice mine Leaflike veinlets of molybdenite in skarn Schrader (1912); Schilling (1962) Mammoth Molybdenite in skarn Brooklyn mine Argentiferous molybdenite in skarn Granger and others (1957) Fox Creek Ranch Molybdenite in skarn Granger and others (1957); Schilling (1964) Robinette prospect Molybdenite in skarn concentrated in veins normal Granger and others (1957) to igneous/sedimentary contact Pilot Range Minor wulfenite occurrence Schilling (1962) Dolly Varden (Mizpah Granite) Wulfenite in north-trending fractures in skarn Schilling (1962); Granger and others (1957) Molybdenite in skarn Schrader (1912) Florence #16 Flaky molybdenite disseminated in syenite Copper Shield (Effie Fay) Molybdenite associated with a porphyritic dike Molybdenite in skarn along igenous contact Ivy Wilson (McArdle mine) Molybdenite disseminated in quartzite Jackson Wulfenite in skarn Schilling (1962); Granger and others (1957) Jay Bird Molybdenite and scheelite in skarn Bonham (1970) Guanomi (Fosters Camp) Molybdenite in veins and disseminated in quartz monzonite stock Hill-Johnson prospect Ilsemannite present as stain coating fractures in Verdi (Fleisch) Molybdenite occurs as a fracture coating Carrie Molybdenite in veins in quartz monzonite Schilling (1962) Tonopah Divide Powellite occurs as minute needles in veins Lone Mountain Minor molybdenite occurrence Black Horse mine Molybdenite and powellite in skarn Columbia Disseminated powellite and molybdenite in alaskite Grandma Shaft Disseminated molybdenite in small alaskite body Bullfrog-George (Slate Ridge) Molybdenite in quartz veins Molybdenite and ilsemannite in distinct mineralized McBoyle prospect Molybdenite and ilsemannite occur along fault zone SCALE 1:1,000,000 Shenandoah Molybdenite and wulfenite localized along faults; some production Smithsonite mine Wulfenite in limestone 100 KILOMETERS Mobile mine Wulfenite in breccia zone Whale mine Wulfenite in veins Pilgrim mine Wulfenite disseminated in limestone along bedding Ruth mine Fracture coating wulfenite occurs with galena pods in breccia zones EXPLANATION Hermosa claim Wulfenite in breccia zone Milford Wulfenite in breccia zone Schilling (1962); Hewett (1931) Tertiary and Mesozoic intrusive rocks (Carlson and others, 1975) Crescent Minor wulfenite occurrence Schilling (1962); Lawrence (1963) Duplex (IXL) Wulfenite in veins Selected major landsat lineament (Rowan and Wetlaufer, 1979) Schilling (1962); Koschmann and Bergendahl ----Wulfenite occurs in open fissures at the intersection of Longwell and others (1965); Koschmann and Approximately-200 milligal contour; hachured on side of lower values (Eaton and others, 1979) dikes and irregular masses of andesite porphyry Bergendahl (1968) Molybdenite in quartz stockwork Schilling (1962); Longwell and others (1965) Major occurrence of molybdenum Scott Camp (Tungsten Molybdenite disseminated in shale adjacent to intrusive Schilling (1962) Molybdenum associated with skarn Nevada Wonder Molybdenite in veins in rhyolite; wulfenite in Schilling (1962); Vanderburg (1940) Chalk Mountain Powellite in tactite; molybdenite in unoxidized zones Vein or disseminated molybdenum Risue Canyon (Sweetwater) Molybdenite and powellite in skarn Schilling (1962) Lincoln mine Molybdenite and powellite in skarn Tschanz and Pampeyan (1970); Schilling (1962) Lead-molybdenum oxides Cherokee (Viola shaft) Molybdenite in veins Tschanz and Pampeyan (1970) Locally high-grade zones of molybdenite in skarn Analyses for molybdenum Roberts (1943) Nightingale Unevenly distributed molybdenite in skarn Smith (1942) Garfield Force Molybdenite and scheelite in skarn Stormy Day Molybdenite and scheelite in skarn Johnson (1958) Stank mine Molybdenite and scheelite occur in fractures Schilling (1962) Humboldt mine PRELIMINARY MOLYBDENUM OCCURRENCE MAP OF NEVADA Molybdenite result of contact metamorphism Iron Forge Molybdenite and scheelite in skarn Fifty-Six mine Molybdenite occurrence Ву Empire mining district Molybdenite occurrence Molybdenite and powellite skarn Nightingale mining district Majuba Hill Molybdenite occurrence Richard A. LeVeque, Ted G. Theodore, Nathan T. Lowe, and Jocelyn A. Peterson' Comstock Lode Wulfenite occurs in the oxidized zone Old Soldier (Churchill Butte) Wulfenite in veins Silver City Molybdenite in veins 1979 Benway mining district Molybdenite in skarn Yerington Molybdenite concentrated along some faults in skarn McCoy (Fly Boy) Molybdenite disseminated in granodiorite W and P mine (Last Chance) Molybdenite localized in shear zone Broken Hill Molybdenite in veins in andesite tuff Rawhide mining district Molybdenite occurrence U. S. Geological Survey, Menlo Park, Ca. 94025 Copper Mountain Molybdenite in skarn U. S. Bureau of Mines, Spokane, Wa. 99207 Rand mine (Nevada Rand) Wulfenite in breccia zone Bovard Molybdenite and ilsemannite in breccia zone Douglas prospect Disseminated molybdenite sprinkled through quartz Garfield Hills (Luning) Molybdenite and powellite in skarn Base from U. S. Geological Survey Molybdenite and scheelite in skarn Cory Canyon Disseminated molybdenite in granite Pilot Mountains (Ciraham Molybdenite and scheelite in skarn Pine Tree (Mina; Pine Nut) Porphyry molybdenum deposit Schilling (1962); Woodcock and Hollister (1978) Molybdenite and scheelite in veins in skarn Schilling (1962) Red1ich Disseminated molybdenite in quartz veins Teels Marsh (Marietta) Molybdenite and scheelite in skarn Queens Molybdenite and scheelite in skarn 122 Round Mountain Molybdenum anomaly bordering diorite stock

123	Alum Gulch (Sorenson prospect)	Molybdenite and ilsemannite associated with stockwork quartz	Kirkemo, Anderson, and Creasey (1965); Schilling (1964)
124	Wild Horse district	Molybdenite in skarn	Vanderburg (1936)
125	Alpine	Molybdenite and scheelite in skarn	do.
126	Antelope Spring	Molybdenite in skarn	do.
127	Coyote	Molybdenum occurrence	U.S. Bureau of Mines (1978)
128	Owyhee	Molybdenite occurs in quartz veins cutting slate	Schilling (1962)
129	Chinck Nickel	Molybdenite in quartz veins	U.S. Bureau of Mines (1978)
130	Golden Ensign	Molybdenite with some gold and silver	Schilling (1962)
131	Garnet Tungsten	Powellite and molybdenite in skarn	Bushnell (1967)
132	Batholith	Powellite and molybdenite in skarn	Schilling (1962; 1964)
133	McDermitt	Anomalous concentration of molybdenum associated with uranium ore zones	Rytuba and Glanzman (1978)
134	Indian Springs	Unspecified molybdenum mineral in stockwork deposit	Slack (1972)
135	Granite Creek	Molybdenum occurs with scheelite in skarn adjacent to granodiorite	Hotz and Willden (1964); Hobbs and Clabaus (1946)
136	Swartz Canyon (Patterson)	Molybdenite in east-striking joint	Schilling (1962)
137	Molly prospect	Molybdenite-bearing quartz veins in widely spaced, parallel fractures	Willden (1964)
138	Mill City	Molybdenite and scheelite in skarn; mineralization focused by faults and joints	Tingley (1975); Kerr (1934)
139	Harris Mo	Molybdenum and tungsten occurrence	U.S. Bureau of Mines (1978)
140	Indian Creek (Grey Eagle)	Molybdenite and powellite in hornfels	Schilling (1962)
141	Hoosier mine	Wulfenite occurs along breccia zone in dolomitized limestone	Longwell and others (1965); Schilling (1962)
142	Thrabert	Molybdenum and tungsten occur in skarn	Johnson (1958)
143	Thrasher	Molybdian scheelite in skarn	do.
144	Hamilton district	Molybdenite in quartz veins; wulfenite in lead deposits	Schilling (1962)
145	Steamboat Springs	Ilsemannite stained basalt in hot spring area	Bonham (1970)
146	Sweetwater	Molybdenite disseminated in flakes, seams, and pockets	Schilling (1962)
47	Desert Creek Peak	Molybdenite occurs in volcanic rocks	do.
48	White Eagle	Molybdenum occurrence	U.S. Bureau of Mines (1978)
49	Colby-U.V. Industries	Molybdenite plus silver and copper	Anonymous (1978)
50	Nevada Scheelite (Leonard)	Molybdenum, tungsten, and copper occurrence	Ross (1961)
51	Downeyville	Wulfenite in fractured and oxidized limestone	Kral (1951)
52	Hillside Cu	Molybdenum show at copper deposit	U.S. Bureau of Mines (1978)
53	Superion	Molybdenite in vein cutting limestone	Schilling (1962)
54	Redemption	Wulfenite occurrence	Albers and Stewart (1972)
55	Mount Hope	Molybdenite in veined rhyolite porphyry	Missallati (1973)
56	Longstreet	Molybdenite flakes in skarn	Kral (1951)
57	Gibellini-Bisoni	Molybdenum concentrations of 70 to 960 ppm in unoxidized rock; molybdenum both in molybdenite and in organic matter	Desborough and others (1979)
58	Klondike	Molybdenum concentrations of 4 to 65 ppm in mineralized outcrops near lead-silver veins	W. Van der Ley (written commun., 1977)
		References cited	

Anonymous, 1978: World Mining, July, p. 60.

Binyon, E. O., 1948, Gibellini manganese-zinc-nickel deposits, Eureka County, Nevada: U.S. Bureau of Mines Report of Investigation 4162, 9 p. Blake, D. W., Theodore, T. G., Batchelder, J. N., and Kretschmer, E. L., 1978, Structural relations of igneous rocks and mineralization in the

Battle Mountain mining district, Lander County, Nevada: I.A.G.O.D. Symposium Proceedings, 5th, Snowbird-Alta, Utah. 1979, Structural relations of igneous rocks and mineralization in the Battle Mountain mining district, Lander County, Nevada: I.A.G.O.D. Symposium, 5th, Snowbird-Alta, Utah [in press].

Bonham, H. F., 1970, Geology and mineral deposits of Washoe and Storey Counties, Nevada: Nevada Bureau of Mines and Geology Bulletin 70, 140 p. Bushnell, Kent, 1967, Geology of the Rowland quadrangle, Elko County, Nevada: Nevada Bureau of Mines Bulletin 67, 38 p.

Carlson, J. E., Laird, D. W., Peterson, J. A., Schilling, J. H., Silberman, M. L., and Stewart, J. H., 1975, Preliminary map showing distribution and isotopic ages of Mesozoic and Cenozoic intrusive rocks in Nevada: U.S. Geological Survey Open-file Report 75-499, 12 p., scale 1:1,000,000. Cornwall, H. R., 1972, Geology and mineral deposits of southern Nye County, Nevada: Nevada Bureau of Mines and Geology Bulletin 77, 49 p. Desborough, G. A., Poole, F. G., Hose, R. K., and Radtke, A. S., 1979, Metals in Devonian kerogenous marine strata at Gibellini and Bisoni properties

in southern Fish Creek Range, Eureka County, Nevada: U.S. Geological Survey Open-file Report 79-530, 31 p. Eaton, G. P., Wahl, R. R., Prostka, H. J., Mabey, D. R., and Kleinkopf, M. D., 1979, Regional gravity and tectonics patterns--Their relation to late Cenozoic epeirogeny and lateral spreading in the western Cordillera: Geological Society of America Memoir 152 [in press].

Erickson, R. L., and Marsh, S. P., 1974, Geochemical, aeromagnetic and generalized geological maps showing distribution and abundance of copper and molybdenum, Brooks Spring quadrangle, Humboldt County, Nevada: U.S. Geological Survey Mineral Investigation Field Studies Map MF-564, scale

Ervine, W. B., 1973, The geology and mineral zoning of the Spanish Belt mining district, Nye County, Nevada [abs.]: Dissertation Abstracts, v. 34, Gilluly, James, and Gates, Olcott, 1965, Tectonic and igneous geology of the northern Shoshone Range, Nevada: U.S. Geological Survey Professional

Granger, A. E., Bell, M. M., Simmons, G. C., Lee, Florence, 1957, Geology and mineral resources of Elko County, Nevada: Nevada Bureau of Mines Bulletin 54, 190 p.

Hewett, D. F., 1931, Geology and ore deposits of the Goodsprings quadrangle, Nevada: U.S. Geological Survey Professional Paper 162, 172 p. Hobbs, S. W., and Clabaugh, S. E., 1946, Tungsten deposits of the Osgood Range, Humboldt County, Nevada: Nevada Bureau of Mines Bulletin 44, 29 p. (Nevada University Bulletin, Geology and Mining Series 44).

Hotz, P. E., and Willden, Ronald, 1964, Geology and mineral deposits of the Osgood Mountains quadrangle, Humboldt County, Nevada: U.S. Geological Survey Professional Paper 431, 128 p. Johnson, A. C., 1958, Exploration, development, and costs of the Stormy Day Tungsten mine, Pershing County, Nevada: U.S. Bureau of Mines Information

Johnson, M. G., 1977, Geology and mineral deposits of Pershing County, Nevada: Nevada Bureau of Mines Bulletin 89, 115 p.

Kerr, P. F., 1934, Geology of the tungsten deposits near Mill City, Nevada: Nevada Bureau of Mines Bulletin 21, 46 p. (Nevada University Bulletin, Kirkemo, Harold, Anderson, C. A., and Creasey, S. C., 1965, Investigations of molybdenum deposits in the conterminous United States, 1942-60: U.S.

Koschmann, A. H., and Bergendahl, M. H., 1968, Principal gold-producing districts of the United States: U.S. Geological Survey Professional Paper

Kral, V. E., 1951, Mineral resources of Nye County, Nevada: University of Nevada Bulletin 45, no. 3 (Nevada University Bulletin, Geology and Mining Series, no. 50, 223 p.).

Lawrence, E. F., 1963, Antimony deposits of Nevada: Nevada Bureau of Mines Bulletin 61, 248 p. Longwell, C. R., Pampeyan, E. H., Bowyer, Ben, and Roberts, R. J., 1965, Geology and mineral deposits of Clark County, Nevada: Nevada Bureau of

Michell, W. D., 1945, Oxidation in a molybdenite deposit, Nye County, Nevada: Economic Geology, v. 40, no. 2, p. 99-114. Missallati, A. A., 1973, Geology and ore deposits of the Mount Hope mining district, Eureka County, Nevada: Stanford University, Ph. D. thesis,

Nolan, T. B., 1962, The Eureka mining district, Nevada: U.S. Geological Survey Professional Paper 406, 78 p.

Roberts, R. J., 1943, The Rose Creek tungsten mine, Pershing County, Nevada: U.S. Geological Survey Bulletin 940-A, 14 p. Roberts, R. J., and Arnold, D. C., 1965, Ore deposits of the Antler Peak quadrangle, Humboldt and Lander Counties, Nevada: U.S. Geological Survey

Roberts, R. J., Montgomery, K. M., and Lehner, R. E., 1967, Geology and mineral resources of Eureka County, Nevada: Nevada Bureau of Mines Bulletin Ross, D. C., 1961, Geology and mineral deposits of Mineral County, Nevada: Nevada Bureau of Mines Bulletin 58, 98 p.

Rowan, L. C., and Wetlaufer, P. H., 1979, Geologic evaluation of major lineaments in Nevada and their relationship to ore deposits: U.S. Geological Survey Open-file Report 79-544, 65 p.

Rytuba, J. J., and Glanzman, R. K., 1978, Relation of mercury, uranium, and lithium deposits to the McDermitt Caldera complex, Nevada-Oregon: U.S. Geological Survey Open-file Report 78-926, 19 p. Schaller, W. T., 1911, Mineralogic notes, Series 1: U.S. Geological Survey Bulletin 490, 109 p.

Schilling, J. H., 1962, An inventory of molybdenum occurrences in Nevada: Nevada Bureau of Mines Report 2, 48 p.

1964, Metallic mineral resources--Molybdenum, in Mineral and water resources of Nevada: Nevada Bureau of Mines Bulletin 65, p. 124-132. Schrader, F. C., 1912, A reconnaissance of the Jarbidge, Contact, and Elk Mountain mining districts, Elko County, Nevada: U.S. Geological Survey

Shawe, D. R., 1976, Potential for resources of gold, porphyry copper and molybdenum, Round Mountain, Nevada: U.S. Geological Survey Professional Paper 1000, 16 p. Slack, J. F., 1972, Structure, petrology, and ore deposits of the Indian Springs (De Lano Mountains) Region, Elko County, Nevada; Miami University

Smith, W. C., and Guild, P. W., 1942, Tungsten deposits of the Nightingale district, Pershing County, Nevada: U.S. Geological Survey Bulletin

936-B, p. 39-58. Spencer, A. C., 1917, The geology and ore deposits of Ely, Nevada: U.S. Geological Survey Professional Paper 96, 189 p. Stewart, J. H., McKee, E. H., and Stager, H. K., 1977, Geology and mineral deposits of Lander County, Nevada: Nevada Bureau of Mines and Geology

Bulletin 88, 106 p. Theodore, T. G., and Blake, D. W., 1975, Geology and geochemistry of the Copper Canyon porphyry copper deposit and surrounding area, Lander County, Nevada: U.S. Geological Survey Professional Paper 798-B, p. B1-B86.

Theodore, T. G., and Roberts, R. J., 1971, Geochemistry and geology of deep drill holes at Iron Canyon, Lander County, Nevada, with a section on Geophysical logs of drill hole DDH-2 by C. J. Zablocki: U.S. Geological Survey Bulletin 1318, 38 p. Theodore, T. G., Silberman, M. L., and Blake, D. W., 1973, Geochemistry and potassium-argon ages of plutonic rocks in the Battle Mountain mining

district, Lander County, Nevada: U.S. Geological Survey Professional Paper 798-A, p. A1-A24. Tingley, J. V., 1975, K-Ar dates on grandiorite and related scheelite-bearing quartz veins at Tungsten, Pershing County, Nevada: Isochron/West,

Tschanz, C. M., and Pampeyan, E. H., 1970, Geology and mineral deposits of Lincoln County, Nevada: Nevada Bureau of Mines Bulletin 73, p. 1-183. U.S. Bureau of Mines, 1978, Mineral Industry Location System.

Woodcock, J. R., and Hollister, V. F., 1978, Porphyry molybdenite deposits of the North American condillera: Minerals Science Engineering, v. 10,

U.S. Geological Survey, 1948, Mineral commodity files on microfilm: Reels I-23 and I-24. Vanderburg, W. O., 1936, Reconnaissance of mining districts in Pershing County, Nevada: U.S. Bureau of Mines Information Circular 6902, 57 p. ____1938, Reconnaissance of mining districts in Eureka County, Nevada: U.S. Bureau of Mines Information Circular 7022, 66 p.

Willden, Ronald, 1964, Geology and mineral deposits of Humboldt County, Nevada: Nevada Bureau of Mines Bulletin 59, 154 p.

Shawe (1976)

no. 1, 18 p. Wrucke, C. T., and Armbrustmacher, T. J., 1975, Geochemical and geologic relations of gold and other elements at the Gold Acres open-pit mine, Lander County, Nevada: U.S. Geological Survey Professional Paper 860, 27 p.

Wrucke, C. T., Armbrustmacher, T. J., and Hessin, T. D., 1968, Distribution of gold, silver and other metals near Gold Acres and Tenabo, Lander County, Nevada: U.S. Geological Survey Circular 589. 19 n